

Supplemental Table S1. Hazard ratio for mortality in different cohorts of HF patients according to hemoglobin RDW ratio by Cox regression analysis.

| Hemoglobin RDW Ratio                    |                               |                               |                               |                               |                              |                    |         |
|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------|---------|
|   | Q1                            | Q2                            | Q3                            | Q4                            | Q5                           | Q6                 | P-value |
| HF reduced Ejection Fraction (N=1864)   |                               |                               |                               |                               |                              |                    |         |
| Univariable                             | 5.84<br>(3.88-8.78)<br><0.001 | 4.34<br>(2.86-6.57)<br><0.001 | 2.75<br>(1.78-4.26)<br><0.001 | 1.87<br>(1.18-2.97)<br>0.008  | 1.22<br>(0.75-1.99)<br>0.42  | 1.0<br>(Reference) | <0.001  |
| Multivariable                           | 2.65<br>(1.62-4.32)<br><0.001 | 2.23<br>(1.37-3.63)<br>0.001  | 1.38<br>(0.83-2.29)<br>0.22   | 1.16<br>(0.69-1.95)<br>0.58   | 0.91<br>(0.53-1.57)<br>0.74  | 1.0<br>(Reference) | <0.001  |
| Multivariable and Drugs                 | 2.68<br>(1.62-4.42)<br><0.001 | 2.42<br>(1.47-3.96)<br><0.001 | 1.53<br>(0.91-2.56)<br>0.11   | 1.26<br>(0.75-2.13)<br>0.39   | 0.97<br>(0.56-1.68)<br>0.91  | 1.0<br>(Reference) | <0.001  |
| HF preserved Ejection Fraction (N=2725) |                               |                               |                               |                               |                              |                    |         |
| Univariable                             | 5.52<br>(3.85-7.90)<br><0.001 | 3.92<br>(2.71-5.66)<br><0.001 | 3.45<br>(2.38-5.00)<br><0.001 | 2.81<br>(1.92-4.11)<br><0.001 | 1.93<br>(1.28-2.89)<br>0.002 | 1.0<br>(Reference) | <0.001  |
| Multivariable                           | 3.75<br>(2.43-5.78)<br><0.001 | 2.64<br>(1.70-4.10)<br><0.001 | 2.37<br>(1.53-3.69)<br><0.001 | 2.24<br>(1.44-3.51)<br><0.001 | 1.59<br>(0.99-2.55)<br>0.06  | 1.0<br>(Reference) | <0.001  |
| Multivariable and Drugs                 | 3.88<br>(2.51-6.00)<br><0.001 | 2.89<br>(1.86-4.50)<br><0.001 | 2.56<br>(1.64-3.99)<br><0.001 | 2.47<br>(1.57-3.86)<br><0.001 | 1.71<br>(1.07-2.75)<br>0.03  | 1.0<br>(Reference) | <0.001  |

| HF Not-specified (N=2299)  |                               |                               |                               |                               |                             |                    |        |
|----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------|--------|
| Univariable                | 5.97<br>(4.02-8.87)<br><0.001 | 4.87<br>(3.26-7.26)<br><0.001 | 3.26<br>(2.14-4.95)<br><0.001 | 2.88<br>(1.89-4.39)<br><0.001 | 1.70<br>(1.08-2.69)<br>0.02 | 1.0<br>(Reference) | <0.001 |
| Multivariable              | 2.69<br>(1.64-4.41)<br><0.001 | 2.19<br>(1.34-3.58)<br>0.002  | 1.56<br>(0.94-2.58)<br>0.08   | 1.46<br>(0.88-2.42)<br>0.14   | 1.32<br>(0.78-2.23)<br>0.30 | 1.0<br>(Reference) | <0.001 |
| Multivariable and<br>Drugs | 2.47<br>(1.50-4.06)<br><0.001 | 2.14<br>(1.31-3.49)<br>0.002  | 1.57<br>(0.95-2.61)<br>0.08   | 1.39<br>(0.84-2.32)<br>0.20   | 1.28<br>(0.76-2.17)<br>0.36 | 1.0<br>(Reference) | <0.001 |

Data is presented as hazard ratio (95% confidence interval), P value.

Parameters that were included in the main multivariable analysis model were age, gender, NYHA functional class, diabetes, hypertension, ischemic heart disease, atrial fibrillation, log-transformed body mass index, log-transformed serum urea levels, square root-transformed estimated glomerular filtration rate, serum sodium and Hemoglobin RDW ratio.

Parameters that were included in the multivariable and drugs analysis included the above parameters and the drug treatment with angiotensin-converting enzyme inhibitor/angiotensin receptor blocker/sacubitril-valsartan, beta blocker, furosemide and spironolactone.